PATENT
2936-0194P

IN THE U.S. PATENT AND TRADEMARK OFFICE

Applicant: W. TAKI et al.

Appl. No.: NEW Group:

Filed: August 28, 2003 Examiner:

For: FREQUENCY CONVERSION APPARATUS

INFORMATION DISCLOSURE STATEMENT
(SUBMISSION CONCURRENT WITH THE
FILING OF A NEW PATENT APPLICATION)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

August 28, 2003

Sir:

Pursuant to 37 C.F.R. §§ 1.97 and 1.98, applicant(s) hereby submit(s) an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS OR OTHER INFORMATION

The patents, publications, or other information submitted for consideration by the Office are listed on PTO-1449, attached hereto.

II. COPIES

a. ☐ This application was filed before June 30, 2003. Accordingly, submitted herewith is a legible copy of (i) each U.S. and foreign patent; (ii) each publication or that portion which caused it to be listed; and (iii) all other information or that portion which caused it to be listed.

b. ☒ This application was filed on or after June 30, 2003. Accordingly, copies of cited US patents and patent application publications therefore are not included. Copies of foreign patent documents and non-patent literature are included.

c. ☐ This application is a National Phase of a PCT application. Some or all of the documents listed on the PTO-1449 are not enclosed because they were cited in the International Search Report and copies should be forwarded from the International Search Authority. If copies are needed, please contact the undersigned.

III. CONCISE EXPLANATION OF THE RELEVANCE
(check at least one box)

a. ☐ **DOCUMENTS IN THE ENGLISH LANGUAGE**

The patents, publications, or other information listed on the attached PTO 1449 are in the English language and therefore, do not require a statement of relevancy.

b. ☒ **DOCUMENTS NOT IN THE ENGLISH LANGUAGE**

A concise explanation of the relevance of all patents, publications, or other information listed that is not in the English language is as follows:

Statements of relevancy as well as English language abstracts are provided for JP H1-238321A and JP S64-5122A.

c. ☐ **ENGLISH LANGUAGE SEARCH REPORT**

An English language version of the search report or action that indicates the degree of relevance found by the foreign office is attached, thereby satisfying the requirement for a concise explanation. See MPEP 609(III)(A)(3).

d. ☐ **OTHER**

The following additional information is provided for the Examiner's consideration.

Docket No. 2936-0194P

FEES

This Information Disclosure Statement is being filed concurrently with the filing of a new patent application; therefore, no fee is required.

If the Examiner has any questions concerning this IDS, he/she is requested to contact the undersigned. If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule and charge the appropriate fee to Deposit Account No. 02-2448.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under § 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

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TCB:MH/pjh
2936-0194P

Attachment(s):
- ☒ Form PTO-1449(s)
- ☒ Documents
- ☐ Foreign Search Report
- ☐ Fee
- ☐ Other:_____

(Rev. 08/14/03)

Form PTO-1449

INFORMATION DISCLOSURE CITATION IN AN APPLICATION

(Use several sheets if necessary)

ATTY DOCKET NO.	APPLICATION NO.
2936-0194P	NEW
APPLICANT: W. TAKI et al.	
FILING DATE: August 28, 2003	GROUP

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	Kind	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	US						
	US						
	US						
	US						
	US						
	US						
	US						
	US						
	US						
	US						

FOREIGN PATENT DOCUMENTS

	Office	DOCUMENT NUMBER	Kind	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES	TRANSLATION NO
	JP	1-238321	A	1989-09-22	JAPAN			X*	
	JP	64-5122	A	1989-01-10	JAPAN			X*	

OTHER DOCUMENTS (Include Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

* = English language abstract

TCB:MH/pjh

MATERIAL FOR INFORMATION DISCLOSURE STATEMENT

List of Prior Art References

A. Japanese Patent Application Laid-Open No. H1-238321,
laid-open on September 22, 1989

B. Japanese Patent Application Laid-Open No. S64-5122,
laid-open on January 10, 1989

Comments

Reference A

This reference discloses a tuner input circuit that employs, in the input band-pass filter portion thereof, a variable band-pass filter to prevent leakage of back talk signals from within the tuner to the antenna. By contrast, a frequency conversion apparatus according to the present invention has a variable filter provided between a high-frequency amplifier and a first mixer to obtain satisfactory return loss characteristics. Thus, the configuration according to the present invention differs from that disclosed in Reference A.

Reference B

This reference discloses a double-conversion tuner that, instead of employing a variable filter, employs a variable trap or makes the first local frequency so high that back talk signals are outside the received band in order to prevent leakage of back talk signals from within the tuner to the antenna. By contrast, a frequency conversion apparatus according to the present invention has a variable filter provided between a high-frequency amplifier and a first mixer. Thus, the configuration according to the present invention differs from that disclosed in Reference B.